

LAKE ERIE WATER TEMPERATURE DATA SANDUSKY BAY, OHIO 1961-1993

Michael J. McCormick

Great Lakes Environmental Research Laboratory Ann Arbor, Michigan August 1996



UNITED STATES
DEPARTMENT OF COMMERCE

Mickey Kantor Secretary NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

D. James Baker Under Secretary for Oceans and Atmosphere/Administrator Environmental Research Laboratories

James L. Rasmussen Director

NOTICE

Mention of a commercial company or product does not constitute an endorsement by the NOAA Environmental Research Laboratories. Use of information from this publication concerning proprietary products or the tests of such products for publicity or advertising purposes is not authorized. This is GLERL Contribution No. 1011. NTIS# PB96-202445/XAB.

NOAA Technical Memorandum ERL GLERL-98

LAKE ERIE WATER TEMPERATURE DATA SANDUSKY BAY, OHIO 1961-1993

Michael J. McCormick

Great Lakes Environmental Research Laboratory 2205 Commonwealth Blvd. Ann Arbor, MI 48105 internet address: mccormick@glerl.noaa.gov

1. INTRODUCTION

Water temperature data from several sites around the Great Lakes were obtained to determine if any regional climatic changes or trends could be detected based upon these data sets. The study was partially supported by the NOAA Office of Global Programs. Site selection was based upon location and reasonable data access.

This technical memorandum contains data for Sandusky Bay, Ohio on Lake Erie. The water temperature data were collected by the Ohio Department of Natural Resources, Lake Erie Fisheries Unit, Sandusky Bay. The data were recorded from 1961-1993 using an analog temperature recording unit made by Taylor Instruments Co., Rochester, New York. The temperature traces were made on 11 inch diameter paper disks that could hold 7 days of data before the disks had to be changed. The data are scaled to °F.

The data were transcribed into digital format using a CalComp digitizer and appropriate software. A digitizer was used to measure the radial distance from which a temperature could then be calculated. The digitizer was set to continuously measure the radii every 0.01 inches of arc length for each day and calculate an average daily temperature in degrees Celsius. Throughout 1961-1993 there were numerous occasions when the paper disk was not changed on a weekly interval. Also, there were several periods when all data were lost. Consequently, some significant data gaps are present.

The data are plotted and shown in the accompanying figures. Prior to final plotting all data were checked for consistency, and all questionable values were deleted. **All missing data are denoted by -999.**

Data files are identified as TM098Dxx.edt where xx identifies the data year. Data are organized into four columns: month, day, year, and temperature. Although the data are reported to the nearest 0.1°C, given all the uncertainties with the raw data, a more reasonable estimate of their accuracy is 0.5°C.

All data are available in a simple ASCII format. The data files are available from GLERL's WWW site or from the anonymous FTP site. From the GLERL home page (www.glerl.noaa.gov) select FTP server, **or** point your browser to: ftp://ftp.glerl.noaa.gov/publications/tech_reports/glerl-98.

Although great care has been used in checking these data, mistakes may still be present. If errors are found please contact the author at michael.mccormick@noaa.gov.

















